

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for producing a copy-protected audio compact disc master[[,]] containing audio data samples of an audio signal, the method comprising the steps of:

~~at the time of mastering said copy protected audio compact disc,~~

selecting at least one audio data sample of the audio signal;

~~locating a data symbol[[s]] representing said at least one audio data sample, said data symbols having error correction codewords associated therewith;~~

~~overwriting said data symbol[[s]] with an erroneous symbol[[s]]; and~~

locating a first C1 error-correction codeword associated with said data symbol;

producing a first disabled C1 error-correction codeword by altering at least one of a first plurality of C1 P-parity symbols in said first C1 error-correction codeword;

locating a C2 error-correction codeword associated with said data symbol;

producing a disabled C2 error-correction codeword by altering at least one of a plurality of C2 Q-parity symbols in said C2 error-correction codeword;

locating a second C1 error-correction codeword associated with said at least one of a plurality of C2 Q-parity symbols in said C2 error-correction codeword;

producing a second disabled C1 error-correction codeword by altering at least one of a second plurality of C1 P-parity symbols in said second C1 error-correction codeword; and

~~disabling the error correction of the error correction codewords associated with said data symbols, said step of disabling comprising the step of altering at least one of a plurality of parity symbols in the codewords associated with said data symbols, thereby rendering said erroneous symbols uncorrectable.~~

recording onto the master said erroneous symbol, said first disabled C1 error-correction codeword, said disabled C2 error-correction codeword, and said second disabled C1 error-correction codeword.

2. (Original) The method as in claim 1, wherein said selecting at least one audio data sample selects a perfectly-concealable audio data sample having a previous audio data sample and a subsequent audio data sample, such that the value of said perfectly-concealable audio data sample corresponds to a linear interpolation between said previous audio data sample and said subsequent audio data sample.

3. (Currently amended) The method as in claim 1, wherein said erroneous symbol[[s]] corresponds to a superimposed impulse[[s]] to produce a latent noise.

4. (Currently amended) The method as in claim 1, wherein the audio compact disc master has a plurality of sectors and said selecting at least one audio data sample selects at least one audio data sample within each of a group of sectors selected from said plurality of sectors.

5. (Currently amended) The method as in claim 1, wherein ~~the step of altering the at least one of a plurality of parity symbols comprises the step of overwriting at least one of said plurality of parity symbols~~ altering a parity symbol comprises overwriting said parity symbol with an arbitrary erroneous symbol which is a valid Eight-to-Fourteen Modulation (EFM) symbol.

6. (Currently amended) The method as in claim 1, wherein ~~the step of altering the at least one of a plurality of parity symbols comprises the step of erasing at least one of said plurality of parity symbols~~ altering a parity symbol comprises generating an erasure by overwriting said parity symbol with an invalid symbol that does not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

7. – 13 (Canceled)

14. (New) The method as in claim 5, wherein at least two parity symbols in at least one of said disabled codewords are overwritten with arbitrary erroneous symbols, each of which is a valid Eight-to-Fourteen Modulation (EFM) symbol.

15. (New) The method as in claim 5, further comprising altering at least two additional parity symbols in at least one of said disabled codewords by generating erasures therein by overwriting said at least two additional parity symbols in said at least one of said disabled codewords with invalid symbols that do not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

16. (New) The method as in claim 6, wherein at least three parity symbols in at least one of said disabled codewords are altered by generating erasures by overwriting said at least three parity symbols with invalid symbols that do not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

17. (New) A copy-protected disc comprising:

stored within the copy-protected disc, a plurality of reproduced audio data samples of an audio signal, the copy-protected disc further comprising:

at least one selected audio data sample of the audio signal, said at least one audio data sample represented by a data symbol, said data symbol being overwritten with an erroneous symbol;

a first disabled C1 error-correction codeword, the first disabled C1 error-correction codeword produced by altering at least one of a first plurality of C1 P-parity symbols in a first C1 error-correction codeword, the first C1 error-correction codeword associated with said data symbol;

a disabled C2 error-correction codeword produced by altering at least one of a plurality of C2 Q-parity symbols in a C2 error-correction codeword, the C2 error-correction codeword associated with said data symbol;

a second disabled C1 error-correction codeword produced by altering at least one of a second plurality of C1 P-parity symbols in a second C1 error-correction codeword, the second C1 error-correction codeword associated with at least one of the plurality of C2 Q-parity symbols in said C2 error-correction codeword; and

the copy-protected disc thereby comprising said erroneous symbol, said first disabled C1 error-correction codeword, said disabled C2 error-correction codeword, and said second disabled C1 error-correction codeword.

18. (New) The copy-protected disc of claim 17, wherein the selected audio data sample comprises a concealable audio data sample having a previous audio data sample and a subsequent audio data sample, such that the value of said concealable audio data sample

corresponds to a linear interpolation between said previous audio data sample and said subsequent audio data sample.

19. (New) The copy-protected disc of claim 17 wherein said erroneous symbol corresponds to a superimposed impulse to produce a latent noise.

20. (New) The copy-protected disc of claim 17, wherein altering a parity symbol comprises overwriting said parity symbol with an arbitrary erroneous symbol which is a valid Eight-to-Fourteen Modulation (EFM) symbol.

21. (New) The copy-protected disc of claim 17, wherein altering a parity symbol comprises an erasure by overwriting said parity symbol with an invalid symbol that does not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

22. (New) The copy-protected disc of claim 17, wherein at least two parity symbols in at least one of said disabled codewords are overwritten with arbitrary erroneous symbols, each of which is a valid Eight-to-Fourteen Modulation (EFM) symbol.

23. (New) The copy-protected disc of claim 17, further comprising altering at least two additional parity symbols in at least one of said disabled codewords by generating erasures therein by overwriting said at least two additional parity symbols in said at least one of said disabled codewords with invalid symbols that do not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

24. (New) The copy-protected disc of claim 17, wherein at least three parity symbols in at least one of said disabled codewords are altered by generating erasures by overwriting said at least three parity symbols with invalid symbols that do not correspond to any 8-bit value defined for Eight-to-Fourteen Modulation (EFM) encoding.

25. (New) The copy-protected disc of claim 17, wherein the copy-protected disc is molded from a disc master comprising said erroneous symbol, said first disabled C1 error-correction codeword, said disabled C2 error-correction codeword, and said second disabled C1 error-correction codeword.

26. (New) The copy-protected disc of claim 25, wherein the disc master has a plurality of sectors and said selecting at least one audio data sample selects at least one audio data sample within each of a group of sectors selected from said plurality of sectors.

27. (New) A disc master for production of copy-protected discs, the disc master comprising:

    stored within the disc master, a plurality of reproduced audio data samples of an audio signal, the disc master further comprising:

        at least one selected audio data sample of the audio signal, said at least one audio data sample represented by a data symbol, said data symbol being overwritten with an erroneous symbol;

        a first disabled C1 error-correction codeword, the first disabled C1 error-correction codeword produced by altering at least one of a first plurality of C1 P-parity symbols in a first C1 error-correction codeword, the first C1 error-correction codeword associated with said data symbol;

        a disabled C2 error-correction codeword produced by altering at least one of a plurality of C2 Q-parity symbols in a C2 error-correction codeword, the C2 error-correction codeword associated with said data symbol;

        a second disabled C1 error-correction codeword produced by altering at least one of a second plurality of C1 P-parity symbols in a second C1 error-correction codeword, the second C1 error-correction codeword associated with at least one of the plurality of C2 Q-parity symbols in said C2 error-correction codeword; and

    the disc master thereby comprising said erroneous symbol, said first disabled C1 error-correction codeword, said disabled C2 error-correction codeword, and said second disabled C1 error-correction codeword.